Univariate Analysis of Variance

Notes

Output Created		21-FEB-2021 16:04:37
Comments		
Input	Data	D:¥ELEX2020¥2020-2021¥Data¥Input¥Data 7.1.sav
	Active Dataset	DataSet1
	Filter	<none>
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	N of Rows in Working Data File	98
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		UNIANOVA Respon BY Perlakuan Blok /METHOD=SSTYPE(3) /INTERCEPT=EXCLUDE /PLOT=PROFILE(Perlakuan* Blok) TYPE=LINE ERRORBAR=NO MEANREFERENCE=NO YAXIS=AUTO /EMMEANS=TABLES(Perlakuan) COMPARE ADJ(LSD) /EMMEANS=TABLES(Blok) COMPARE ADJ(LSD) /CRITERIA=ALPHA(.05) /DESIGN=Perlakuan Blok.
Resources	Processor Time	00:00:00.45
	Elapsed Time	00:00:00.17

Between-Subjects Factors

		Value Label	N
Perlakuan	1	1	4
	2	2	4
	3	3	4
	4	4	4
	5	5	4
	6	6	4
	7	7	4
Blok	1	1	2
	2	2	2
	3	3	2
	4	4	2
	5	5	2
	6	6	2
	7	7	2
	8	8	2
	9	9	2
	10	10	2
	11	11	2
	12	12	2
	13	13	2
	14	14	2

Tests of Between-Subjects Effects

Dependent Variable: Respon

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	68738.104[a]	20	3436.905	272.512	.000
Perlakuan	29.604	6	4.934	.391	.865
Blok	1675.854	13	128.912	10.221	.001
Error	100.896	8	12.612		
Total	68839.000	28			

a. R Squared = .999 (Adjusted R Squared = .995)

Estimated Marginal Means

1. Perlakuan

Estimates

Dependent Variable: Respon

Perlakuan	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	47.613	2.332	42.234	52.991
2	47.931	2.332	42.553	53.310
3	48.558	2.332	43.179	53.936
4	48.646	2.332	43.267	54.024
5	47.041	2.332	41.663	52.420
6	50.052	2.332	44.674	55.431
7	50.909	2.332	45.531	56.288

Pairwise Comparisons

Dependent Variable: Respon

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.319	3.245	.924	-7.803	7.165
	3	-.945	3.330	.784	-8.624	6.733
	4	-1.033	3.648	.784	-9.444	7.378
	5	.571	3.648	.879	-7.840	8.983
	6	-2.440	3.330	.485	-10.118	5.239
	7	-3.297	3.245	.339	-10.781	4.187
2	1	.319	3.245	.924	-7.165	7.803
	3	-.626	3.245	.852	-8.110	6.858
	4	-.714	3.330	.836	-8.393	6.964
	5	.890	3.648	.813	-7.521	9.301
	6	-2.121	3.648	.577	-10.532	6.290
	7	-2.978	3.330	.397	-10.657	4.700
3	1	.945	3.330	.784	-6.733	8.624

	2	.626	3.245	.852	-6.858	8.110
	4	-.088	3.245	.979	-7.572	7.396
	5	1.516	3.330	.661	-6.162	9.195
	6	-1.495	3.648	.693	-9.906	6.917
	7	-2.352	3.648	.537	-10.763	6.060
4	1	1.033	3.648	.784	-7.378	9.444
	2	.714	3.330	.836	-6.964	8.393
	3	.088	3.245	.979	-7.396	7.572
	5	1.604	3.245	.634	-5.880	9.088
	6	-1.407	3.330	.684	-9.085	6.272
	7	-2.264	3.648	.552	-10.675	6.148
5	1	-.571	3.648	.879	-8.983	7.840
	2	-.890	3.648	.813	-9.301	7.521
	3	-1.516	3.330	.661	-9.195	6.162
	4	-1.604	3.245	.634	-9.088	5.880
	6	-3.011	3.245	.381	-10.495	4.473
	7	-3.868	3.330	.279	-11.547	3.810
6	1	2.440	3.330	.485	-5.239	10.118
	2	2.121	3.648	.577	-6.290	10.532
	3	1.495	3.648	.693	-6.917	9.906
	4	1.407	3.330	.684	-6.272	9.085
	5	3.011	3.245	.381	-4.473	10.495
	7	-.857	3.245	.798	-8.341	6.627
7	1	3.297	3.245	.339	-4.187	10.781
	2	2.978	3.330	.397	-4.700	10.657
	3	2.352	3.648	.537	-6.060	10.763
	4	2.264	3.648	.552	-6.148	10.675
	5	3.868	3.330	.279	-3.810	11.547
	6	.857	3.245	.798	-6.627	8.341

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests

Dependent Variable: Respon

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	29.604	6	4.934	.391	.865
Error	100.896	8	12.612		

The F tests the effect of Perlakuan. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

2. Blok

Estimates

Dependent Variable: Respon

Blok	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	55.907	2.943	49.120	62.693
2	36.093	2.919	29.361	42.826
3	44.846	2.919	38.114	51.579
4	50.418	2.943	43.631	57.204
5	61.434	2.943	54.647	68.221
6	52.890	2.919	46.158	59.622
7	55.758	2.919	49.026	62.491
8	45.577	2.943	38.790	52.364
9	30.379	2.919	23.647	37.111
10	55.335	2.943	48.548	62.122
11	37.330	2.919	30.597	44.062
12	42.632	2.943	35.845	49.419
13	57.203	2.919	50.471	63.936
14	55.698	2.943	48.911	62.485

Pairwise Comparisons

Dependent Variable: Respon

(I) Blok	(J) Blok	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	19.813*	3.905	.001	10.809	28.817
	3	11.060*	3.992	.024	1.854	20.267
	4	5.489	3.922	.199	-3.556	14.534
	5	-5.527	3.922	.196	-14.572	3.517
	6	3.016	3.992	.472	-6.190	12.223
	7	.148	3.905	.971	-8.855	9.152

	8	10.330*	4.342	.045	.318	20.341
	9	25.527*	4.389	.000	15.406	35.649
	10	.571	4.483	.902	-9.766	10.909
	11	18.577*	4.405	.003	8.419	28.735
	12	13.275*	4.483	.018	2.937	23.612
	13	-1.297	4.389	.775	-11.418	8.825
	14	.209	4.342	.963	-9.803	10.220
2	1	-19.813*	3.905	.001	-28.817	-10.809
	3	-8.753	3.992	.060	-17.959	.453
	4	-14.324*	3.992	.007	-23.530	-5.118
	5	-25.341*	3.905	.000	-34.344	-16.337
	6	-16.797*	4.277	.004	-26.660	-6.934
	7	-19.665*	4.277	.002	-29.528	-9.802
	8	-9.484*	3.992	.045	-18.690	-.277
	9	5.714	3.992	.190	-3.492	14.920
	10	-19.242*	4.389	.002	-29.363	-9.120
	11	-1.236	4.373	.785	-11.321	8.849
	12	-6.538	4.405	.176	-16.696	3.619
	13	-21.110*	4.373	.001	-31.195	-11.025
	14	-19.604*	4.389	.002	-29.726	-9.483
3	1	-11.060*	3.992	.024	-20.267	-1.854
	2	8.753	3.992	.060	-.453	17.959
	4	-5.571	3.905	.191	-14.575	3.432
	5	-16.588*	4.389	.005	-26.709	-6.467
	6	-8.044	4.373	.103	-18.129	2.041
	7	-10.912*	4.277	.034	-20.775	-1.049
	8	-.731	4.405	.872	-10.888	9.427
	9	14.467*	4.373	.011	4.382	24.552
	10	-10.489*	4.389	.044	-20.610	-.368
	11	7.516	3.992	.096	-1.690	16.723
	12	2.214	3.992	.594	-6.992	11.420
	13	-12.357*	4.277	.020	-22.220	-2.494
	14	-10.852*	3.905	.024	-19.855	-1.848
4	1	-5.489	3.922	.199	-14.534	3.556
	2	14.324*	3.992	.007	5.118	23.530
	3	5.571	3.905	.191	-3.432	14.575
	5	-11.016*	4.342	.035	-21.028	-1.005
	6	-2.473	4.389	.589	-12.594	7.649
	7	-5.341	3.905	.209	-14.344	3.663
	8	4.841	4.483	.312	-5.497	15.178

	9	20.038*	4.405	.002	9.881	30.196
	10	-4.918	4.483	.305	-15.255	5.420
	11	13.088*	4.389	.018	2.967	23.209
	12	7.786	4.342	.111	-2.226	17.797
	13	-6.786	3.992	.128	-15.992	2.420
	14	-5.280	3.922	.215	-14.325	3.764
5	1	5.527	3.922	.196	-3.517	14.572
	2	25.341*	3.905	.000	16.337	34.344
	3	16.588*	4.389	.005	6.467	26.709
	4	11.016*	4.342	.035	1.005	21.028
	6	8.544	3.905	.060	-.460	17.548
	7	5.676	3.992	.193	-3.530	14.882
	8	15.857*	3.922	.004	6.812	24.902
	9	31.055*	3.992	.000	21.849	40.261
	10	6.099	4.342	.198	-3.913	16.110
	11	24.104*	4.389	.001	13.983	34.226
	12	18.802*	4.483	.003	8.465	29.140
	13	4.231	4.405	.365	-5.927	14.388
	14	5.736	4.483	.237	-4.601	16.074
6	1	-3.016	3.992	.472	-12.223	6.190
	2	16.797*	4.277	.004	6.934	26.660
	3	8.044	4.373	.103	-2.041	18.129
	4	2.473	4.389	.589	-7.649	12.594
	5	-8.544	3.905	.060	-17.548	.460
	7	-2.868	3.992	.493	-12.074	6.338
	8	7.313	3.905	.098	-1.691	16.317
	9	22.511*	4.277	.001	12.648	32.374
	10	-2.445	3.992	.557	-11.651	6.761
	11	15.560*	3.992	.005	6.354	24.767
	12	10.258*	4.389	.048	.137	20.380
	13	-4.313	4.373	.353	-14.398	5.772
	14	-2.808	4.405	.542	-12.965	7.350
7	1	-.148	3.905	.971	-9.152	8.855
	2	19.665*	4.277	.002	9.802	29.528
	3	10.912*	4.277	.034	1.049	20.775
	4	5.341	3.905	.209	-3.663	14.344
	5	-5.676	3.992	.193	-14.882	3.530
	6	2.868	3.992	.493	-6.338	12.074
	8	10.181*	4.389	.049	.060	20.303
	9	25.379*	4.373	.000	15.294	35.464

	10	.423	4.405	.926	-9.735	10.581
	11	18.429*	4.373	.003	8.344	28.513
	12	13.126*	4.389	.017	3.005	23.248
	13	-1.445	3.992	.727	-10.651	7.761
	14	.060	3.992	.988	-9.146	9.267
8	1	-10.330*	4.342	.045	-20.341	-.318
	2	9.484*	3.992	.045	.277	18.690
	3	.731	4.405	.872	-9.427	10.888
	4	-4.841	4.483	.312	-15.178	5.497
	5	-15.857*	3.922	.004	-24.902	-6.812
	6	-7.313	3.905	.098	-16.317	1.691
	7	-10.181*	4.389	.049	-20.303	-.060
	9	15.198*	3.905	.005	6.194	24.202
	10	-9.758*	3.922	.038	-18.803	-.714
	11	8.247	3.992	.073	-.959	17.453
	12	2.945	4.342	.517	-7.066	12.957
	13	-11.626*	4.389	.029	-21.748	-1.505
	14	-10.121	4.483	.054	-20.458	.217
9	1	-25.527*	4.389	.000	-35.649	-15.406
	2	-5.714	3.992	.190	-14.920	3.492
	3	-14.467*	4.373	.011	-24.552	-4.382
	4	-20.038*	4.405	.002	-30.196	-9.881
	5	-31.055*	3.992	.000	-40.261	-21.849
	6	-22.511*	4.277	.001	-32.374	-12.648
	7	-25.379*	4.373	.000	-35.464	-15.294
	8	-15.198*	3.905	.005	-24.202	-6.194
	10	-24.956*	3.905	.000	-33.960	-15.952
	11	-6.951	4.277	.143	-16.814	2.913
	12	-12.253*	3.992	.015	-21.459	-3.047
	13	-26.824*	3.992	.000	-36.030	-17.618
	14	-25.319*	4.389	.000	-35.440	-15.197
10	1	-.571	4.483	.902	-10.909	9.766
	2	19.242*	4.389	.002	9.120	29.363
	3	10.489*	4.389	.044	.368	20.610
	4	4.918	4.483	.305	-5.420	15.255
	5	-6.099	4.342	.198	-16.110	3.913
	6	2.445	3.992	.557	-6.761	11.651
	7	-.423	4.405	.926	-10.581	9.735
	8	9.758*	3.922	.038	.714	18.803
	9	24.956*	3.905	.000	15.952	33.960

	11	18.005*	3.905	.002	9.002	27.009
	12	12.703*	3.922	.012	3.659	21.748
	13	-1.868	3.992	.652	-11.074	7.338
	14	-.363	4.342	.935	-10.374	9.649
11	1	-18.577*	4.405	.003	-28.735	-8.419
	2	1.236	4.373	.785	-8.849	11.321
	3	-7.516	3.992	.096	-16.723	1.690
	4	-13.088*	4.389	.018	-23.209	-2.967
	5	-24.104*	4.389	.001	-34.226	-13.983
	6	-15.560*	3.992	.005	-24.767	-6.354
	7	-18.429*	4.373	.003	-28.513	-8.344
	8	-8.247	3.992	.073	-17.453	.959
	9	6.951	4.277	.143	-2.913	16.814
	10	-18.005*	3.905	.002	-27.009	-9.002
	12	-5.302	3.905	.212	-14.306	3.702
	13	-19.874*	4.277	.002	-29.737	-10.010
	14	-18.368*	3.992	.002	-27.574	-9.162
12	1	-13.275*	4.483	.018	-23.612	-2.937
	2	6.538	4.405	.176	-3.619	16.696
	3	-2.214	3.992	.594	-11.420	6.992
	4	-7.786	4.342	.111	-17.797	2.226
	5	-18.802*	4.483	.003	-29.140	-8.465
	6	-10.258*	4.389	.048	-20.380	-.137
	7	-13.126*	4.389	.017	-23.248	-3.005
	8	-2.945	4.342	.517	-12.957	7.066
	9	12.253*	3.992	.015	3.047	21.459
	10	-12.703*	3.922	.012	-21.748	-3.659
	11	5.302	3.905	.212	-3.702	14.306
	13	-14.571*	3.905	.006	-23.575	-5.568
	14	-13.066*	3.922	.010	-22.111	-4.021
13	1	1.297	4.389	.775	-8.825	11.418
	2	21.110*	4.373	.001	11.025	31.195
	3	12.357*	4.277	.020	2.494	22.220
	4	6.786	3.992	.128	-2.420	15.992
	5	-4.231	4.405	.365	-14.388	5.927
	6	4.313	4.373	.353	-5.772	14.398
	7	1.445	3.992	.727	-7.761	10.651
	8	11.626*	4.389	.029	1.505	21.748
	9	26.824*	3.992	.000	17.618	36.030
	10	1.868	3.992	.652	-7.338	11.074

	11	19.874*	4.277	.002	10.010	29.737
	12	14.571*	3.905	.006	5.568	23.575
	14	1.505	3.905	.710	-7.498	10.509
14	1	-.209	4.342	.963	-10.220	9.803
	2	19.604*	4.389	.002	9.483	29.726
	3	10.852*	3.905	.024	1.848	19.855
	4	5.280	3.922	.215	-3.764	14.325
	5	-5.736	4.483	.237	-16.074	4.601
	6	2.808	4.405	.542	-7.350	12.965
	7	-.060	3.992	.988	-9.267	9.146
	8	10.121	4.483	.054	-.217	20.458
	9	25.319*	4.389	.000	15.197	35.440
	10	.363	4.342	.935	-9.649	10.374
	11	18.368*	3.992	.002	9.162	27.574
	12	13.066*	3.922	.010	4.021	22.111
	13	-1.505	3.905	.710	-10.509	7.498

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

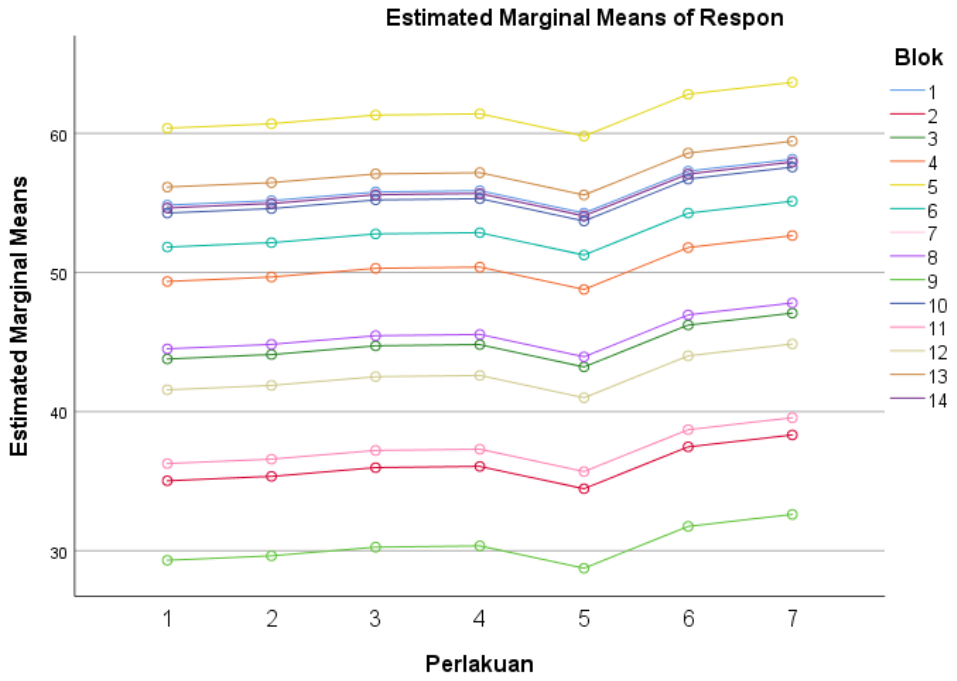
Univariate Tests

Dependent Variable: Respon

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	1675.854	13	128.912	10.221	.001
Error	100.896	8	12.612		

The F tests the effect of Blok. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Profile Plots


Estimated Marginal Means of Respon
Estimated Marginal Means
60
50
40
30
1
2
3
4
5
6
7
Perlakuan
Blok
1
2
3
4
5
6
7
8
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11
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13
14